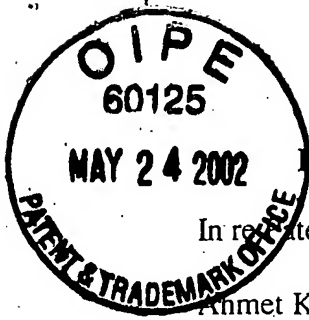


PATENT



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of :

Ahmet Karakas, et al.

Group Art Unit: 2611

Examiner: *Unknown*

Application No.: 10/020,172

Filed: December 18, 2001

For: METHOD AND SYSTEM FOR IMPLEMENTING A
REDUCED COMPLEXITY DUAL RATE ECHO CANCELLER

INFORMATION DISCLOSURE STATEMENT

The Director of the United States Patents
and Commissioner for Patents
Washington, D.C. 20231

Sir:

In accordance with 37 C.F.R. §§ 1.56, 1.97, and 1.98, Applicants respectfully submit the following documents for the Examiner's consideration. A copy of Form PTO-1449 and copies of each of the listed documents are enclosed for the Examiner's convenience.

Applicants respectfully request that the Examiner considers the enclosed references and that the Examiner indicates that the references have been considered in this application by returning a copy of the Form PTO-1449 with the Examiner's initials in the left column per MPEP 609.

This Information Disclosure Statement is believed to be submitted before the mailing of a first Office Action. Accordingly, no fees are due. However, if any fees are

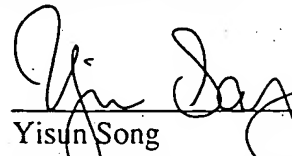
incurred upon the filing of this Information Disclosure Statement, the Commissioner is hereby authorized to charge the undersigned's Deposit Account No. 50-0206.

Respectfully submitted,

HUNTON & WILLIAMS

Date: May 24, 2002

By:


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PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0651-0031
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Substitute for form 1449A/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				Application Number	10/020,172
				Filing Date	December 18, 2001
				First Named Inventor	Ahmet KARAKAS et al.
				Group Art Unit	2611
				Examiner Name	Unassigned
Sheet 1 of 1	Attorney Docket Number		56162.000357		

U.S. PATENT DOCUMENTS						
Examiner Initials *	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
	U1	5,285,474		Chow et al.	02/08/94	
	U2					
	U3					
	U4					
	U5					
	U6					
	U7					
	U8					
	U9					
	U10					

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	P1	JOHN M. CIOFFI, et al, "A Data-Driven Multitone Echo Canceller", IEEE Transactions On Communications, Vol. 42, No. 10, October 1994, pages 2853-2869.	
	P2	DAVID C. JONES, "Frequency Domain Echo Cancellation For Discrete Multitone Asymmetric Digital Subscriber Line Transceivers", IEEE Transactions On Communications, Vol. 43, No. 2/3/4, February/March/April 1995, pages 1663-1672.	
	P3	MINNIE HO, et al, "Discrete Multitone Echo Cancellation", IEEE Transactions On Communications, Vol. 44, No. 7, July 1996, pages 817-825.	
	P4	DEBJYOTI PAL, et al, "A New Method Of Channel Shortening With Applications To Discrete Multi Tone (DMT) Systems", IEEE, 1998, pages 763-768	
	P5	PETER J.W. MELSA, "Impulse Response Shortening For Discrete Multitone Transceivers", IEEE Transactions On Communications, Vol. 44, No. 12, December 1996, pages 1662-1672.	
	P6	NAOFAL AL-DHAHIR, et al, "Optimum Finite-Length Equalization For Multicarrier Transceivers", IEEE Transactions On Communications, Vol. 44, No. 1, January 1996, pages 54-64.	
	P7		

Examiner Signature	Date Considered
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.

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